

Docket No.: AB-126U

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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**Claim 1 (currently amended):** A method for treating a patient with chronic pain, comprising:

a<sup>1</sup>

- providing at least one stimulator having at least two electrodes;
- implanting the at least one stimulator in or adjacent to at least one area of the spine responsible for sensations in a region experiencing chronic pain;
- providing operating power to the at least one stimulator;
- providing stimulation parameters to the at least one stimulator;
- generating stimulation pulses in accordance with the stimulation parameters; and
- delivering the stimulation pulses to nerves and tissue adjacent to the at least two electrodes;

wherein the at least one area of the spine comprises the ventral commissure; and  
wherein the stimulator has a size and shape suitable for placement in or adjacent the at least one area of the spine.

**Claim 2 (canceled)**

**Claim 3 (currently amended):** The method of Claim ~~[[2]]~~<sup>1</sup> wherein the stimulation pulses are delivered at greater than about 100 ~~[[to 150]]~~ Hz.

**Claims 4 - 6 (canceled)**

**Claim 7 (original):** The method of Claim 1 wherein the chronic pain is located in one or both arms, and the at least one stimulator is implanted adjacent to at least one nerve fibers of C5, C6, C7, C8, and T1.

**Claim 8 (original):** The method of Claim 1 wherein the chronic pain is located in one or both legs, and the at least one stimulator is implanted adjacent to at least one nerve fibers of L1-L5, S1, and S2.

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**Claim 9 (original):** The method of Claim 1 wherein the chronic pain is located in the pelvic region, and the at least one stimulator is implanted adjacent to at least one nerve fibers of T10, T11, T12, L1-L5, and S1-S5.

**Claim 10 (original):** The method of Claim 1 wherein the chronic pain is located in the back, and the at least one stimulator is implanted adjacent to at least one nerve fibers of T1-T12, L1-L5, and S1.

**Claim 11 (original):** The method of Claim 1 wherein the chronic pain is located in the cervical region, and the at least one stimulator is implanted adjacent to at least one nerve fibers of C2, C3, C4, and C5.

**Claim 12 (original):** The method of Claim 1 wherein the chronic pain is located in the head/neck region, and the at least one stimulator is implanted adjacent to at least one nerve fibers of C1-C8.

**Claim 13 (original):** The method of Claim 1 further comprising:

providing at least one sensor;  
using the at least one sensor to sense at least one physical condition; and  
determining the stimulation parameters based upon the at least one sensed

condition.

**Claim 14 (original):** The method of Claim 1 wherein providing stimulation parameters comprises receiving the stimulation parameters from at least one external appliance.

**Claim 15 (original):** The method of Claim 1 wherein providing operating power comprises receiving the operating power from at least one external appliance.

**Claim 16 (original):** The method of Claim 1 further comprising providing and implanting more than one stimulator.

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**Claim 17 (currently amended):** A method for treating a patient with chronic pain, comprising the steps of:

providing at least one means for stimulating tissue;  
implanting the at least one stimulating means in or near at least one area of the spine responsible for sensations in a region experiencing chronic pain;  
providing operating power to the at least one stimulating means ;  
providing stimulation parameters to the at least one stimulating means;  
generating stimulation pulses in accordance with the stimulation parameters; and  
delivering the stimulation pulses to nerves and tissue adjacent to the at least one stimulating means;

wherein the at least one area of the spine comprises the ventral commissure; and  
wherein the stimulating means has a size and shape suitable for placement in or near the at least one area of the spine and has leads up to 150 mm long.

**Claim 18 (original):** The method of Claim 17 wherein the body of the stimulator is no more than 150 mm from the nerve to be stimulated.

**Claims 19 and 20 (canceled)**

**Claim 21 (currently amended):** The method of Claim ~~[[20]]~~17 wherein the stimulation parameters are determined using at least one external appliance.

**Claim 22 (currently amended):** The method of Claim ~~[[20]]~~17 wherein providing operating power to the at least one stimulator comprises receiving power from at least one external appliance.

**Claim 23 (original):** The method of Claim 22 wherein providing power to the at least one stimulator further comprises storing the power received from the at least one external appliance.

**Claim 24 (currently amended):** The method of Claim ~~[[20]]~~17 further comprising providing and implanting more than one stimulator.